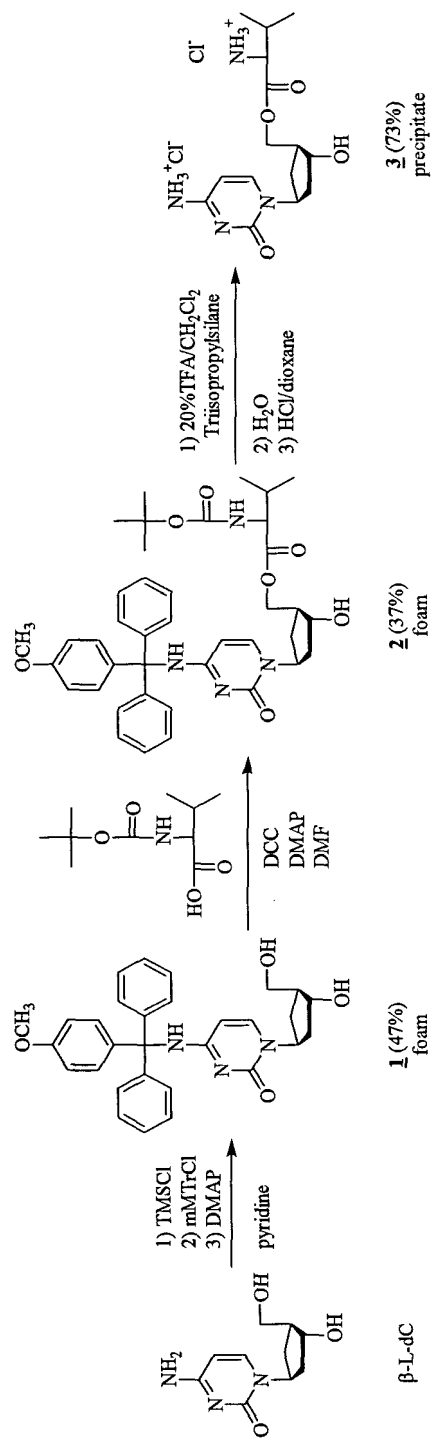
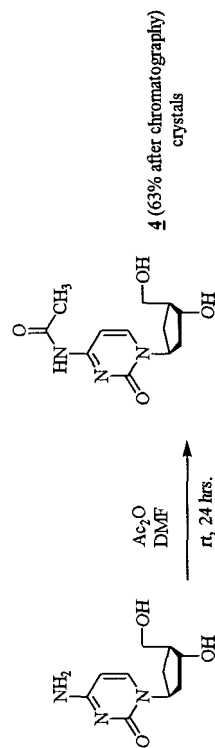


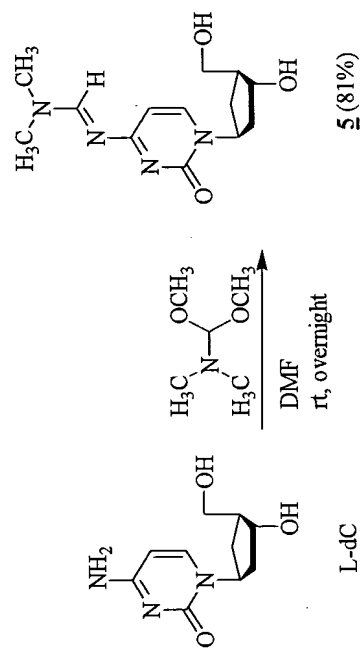
**Figure 1a**      Synthesis of 3'-valinyl esters of 2'-deoxy- $\beta$ -L-cytidine



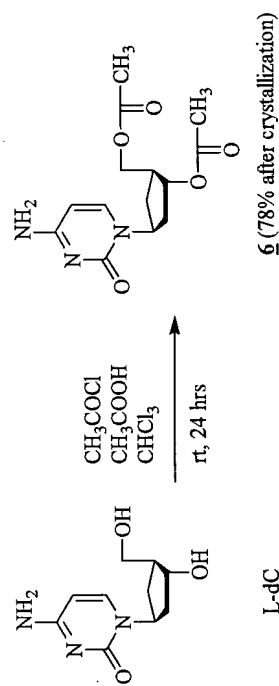
**Figure 1b**      Synthesis of 5'-valinyl esters of 2'-deoxy- $\beta$ -L-cytidine



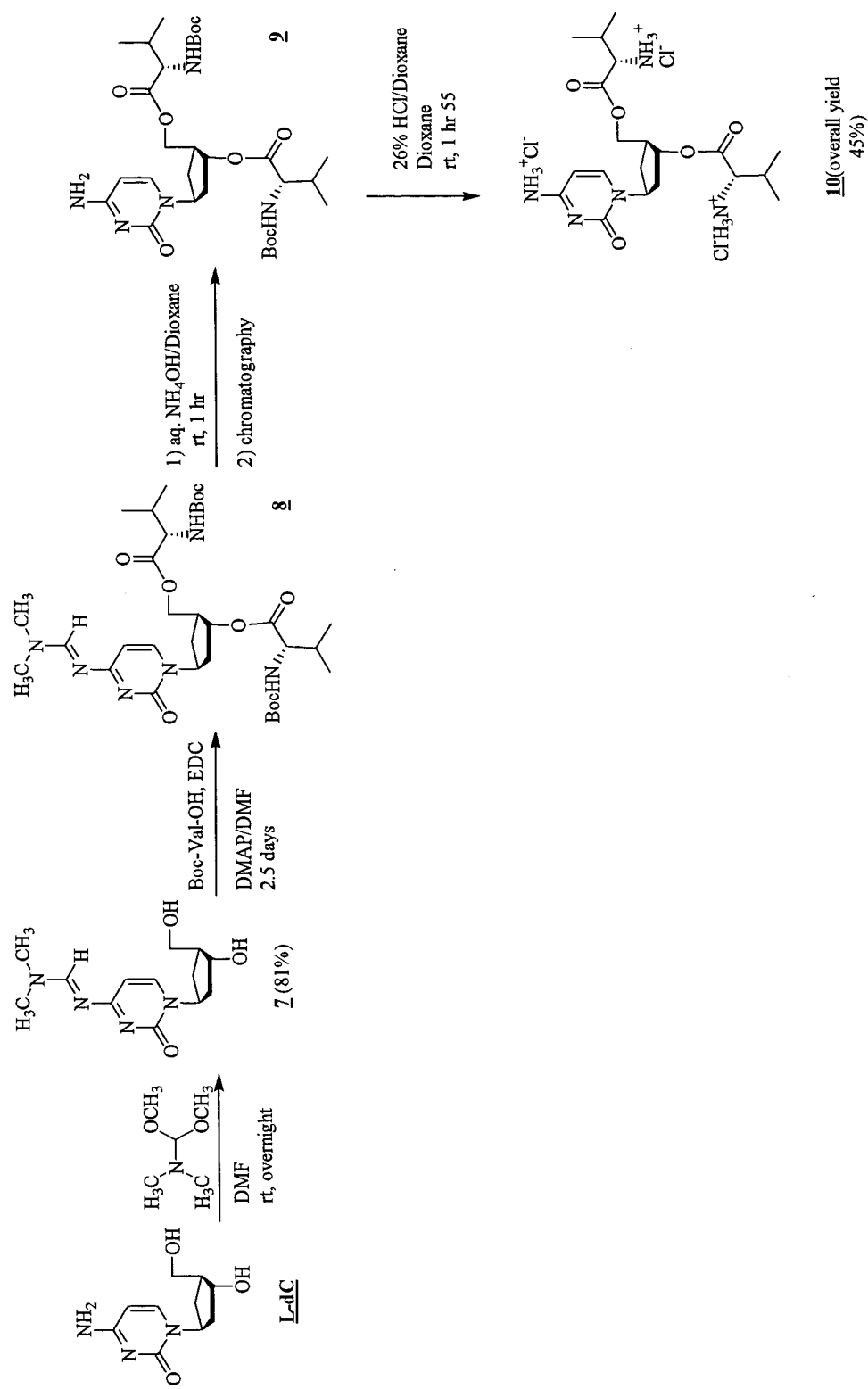
**Figure 2**      Synthesis of *N*<sup>4</sup>-acetyl-2'-deoxy- $\beta$ -L-cytidine



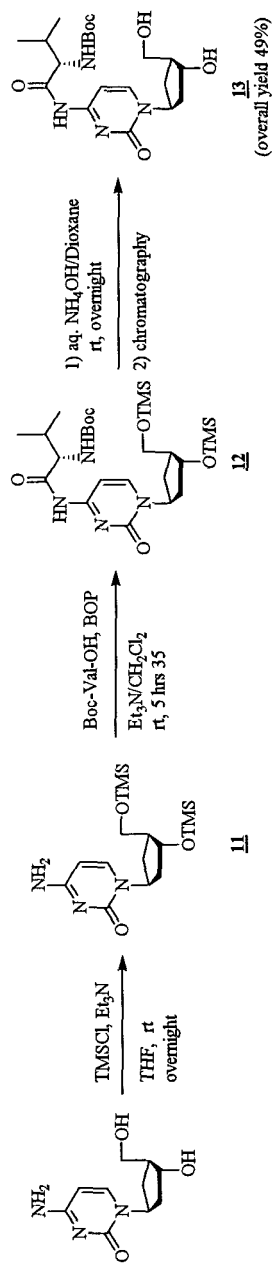
**Figure 3** Synthesis of *N*'-[(dimethylamino)methylene]-2'-deoxy-β-L-cytidine



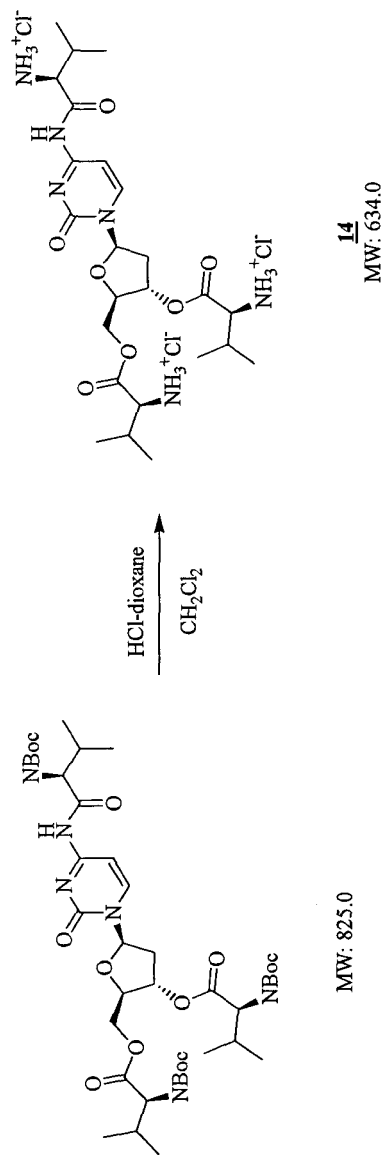
**Figure 4** Synthesis of 3',5'-di-*O*-acetyl-2'-deoxy-β-L-cytidine



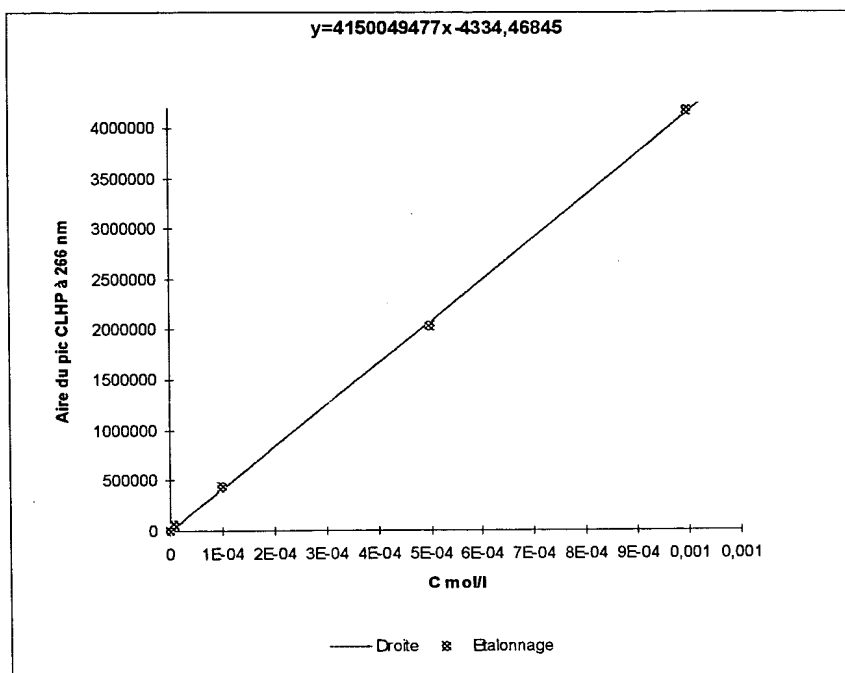
**Figure 5** Synthesis of 3',5'-di-*O*-valinyl esters of 2'-deoxy β-L-cytidine



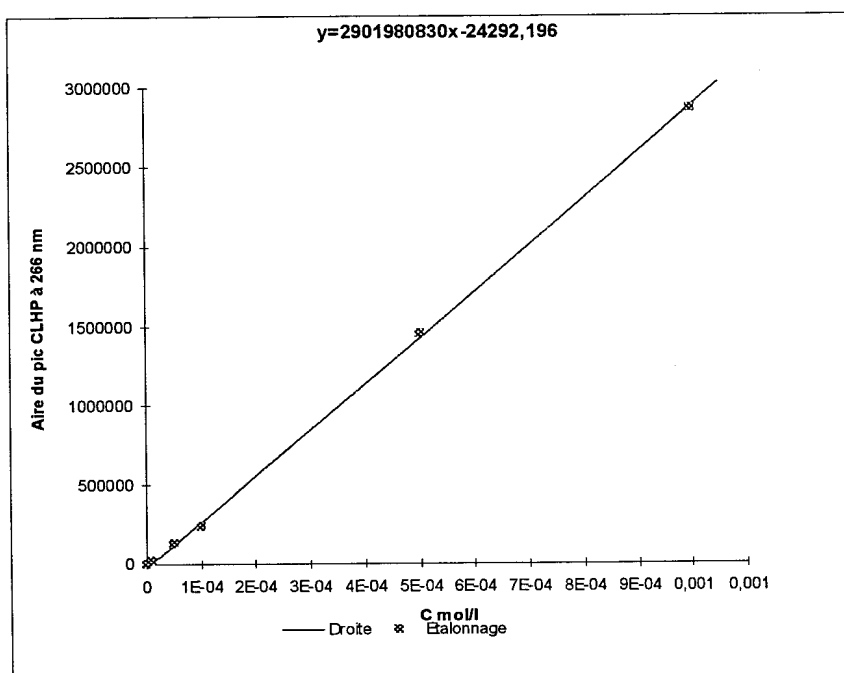
**Figure 6** Synthesis of  $N^4$ -Boc-valinyl ester of 2'-deoxy- $\beta$ -L-cytidine



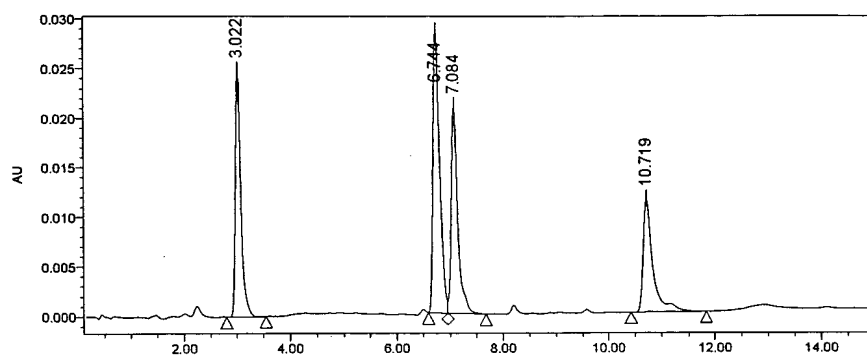
**Figure 7** Synthesis of 3',5', $N^4$ -tri-(L-valinyl)-L-2'-deoxycytidine



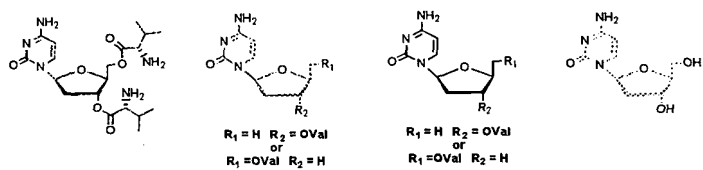
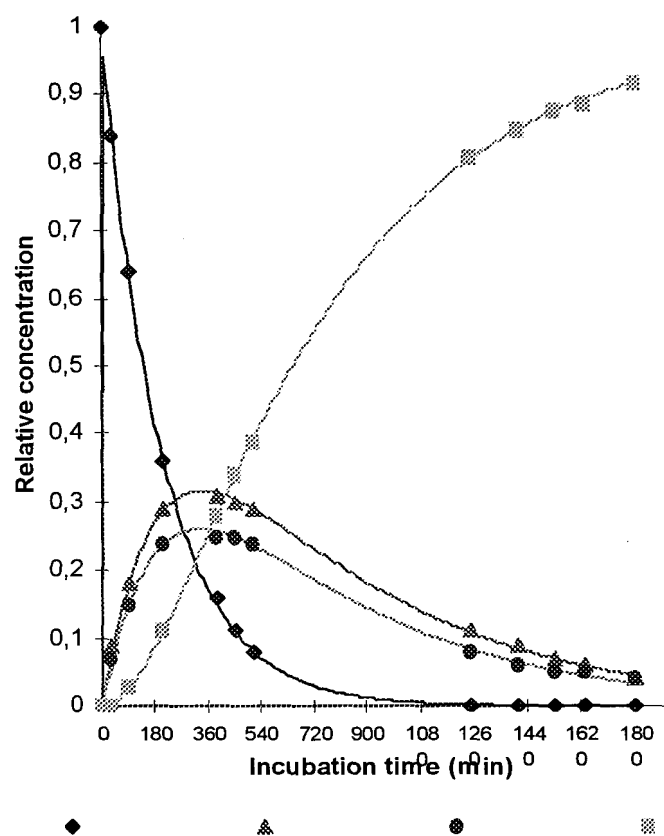
**Figure 8a** Solubility Calibration Curve for D-dC



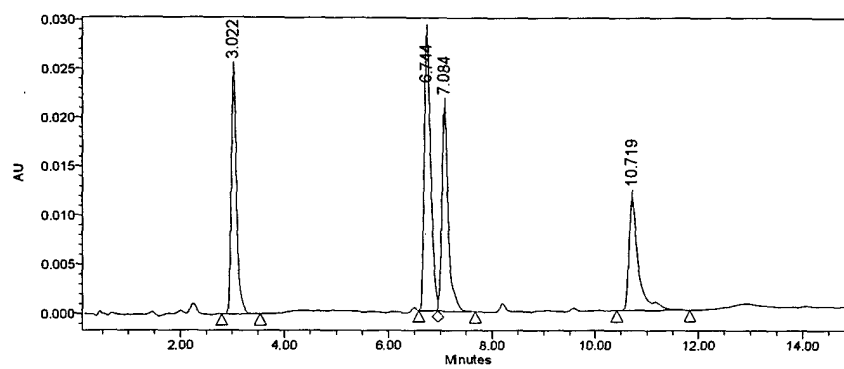
**Figure 8b** Solubility Calibration Curve for the 3',5'-Divalinyl Ester of L-dC



**Figure 9a** HPLC profile – 7.5 hours at pH of 7.42

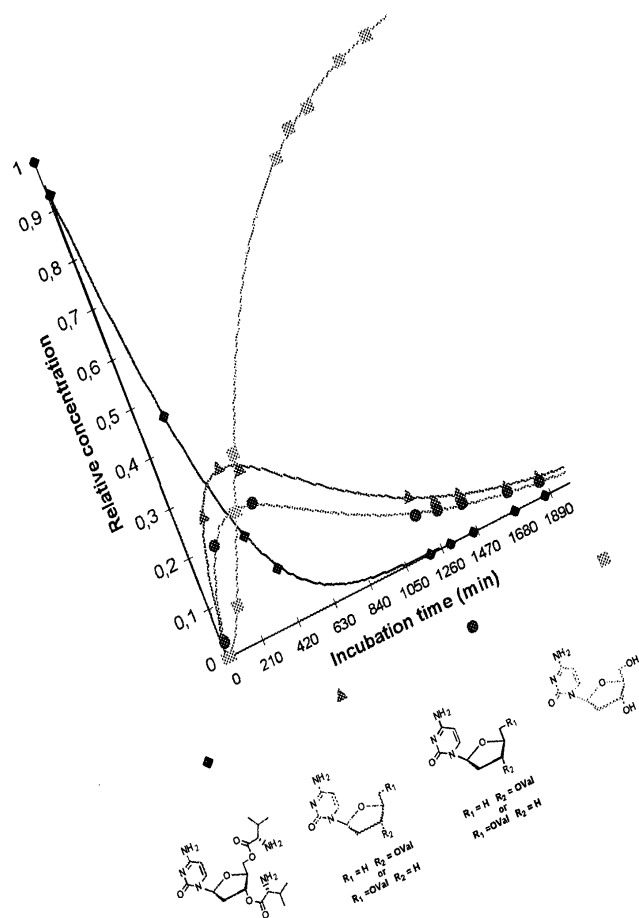


**Figure 9b** Kinetics curves at pH of 7.42

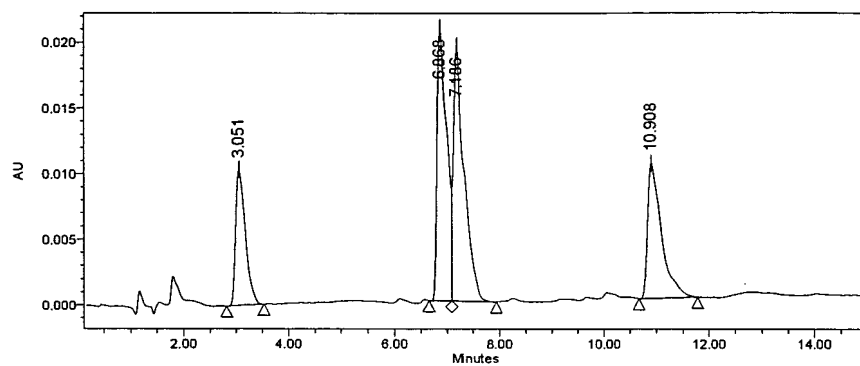


**Figure 10a** HPLC profile – 5.33 hours at pH of 7.20

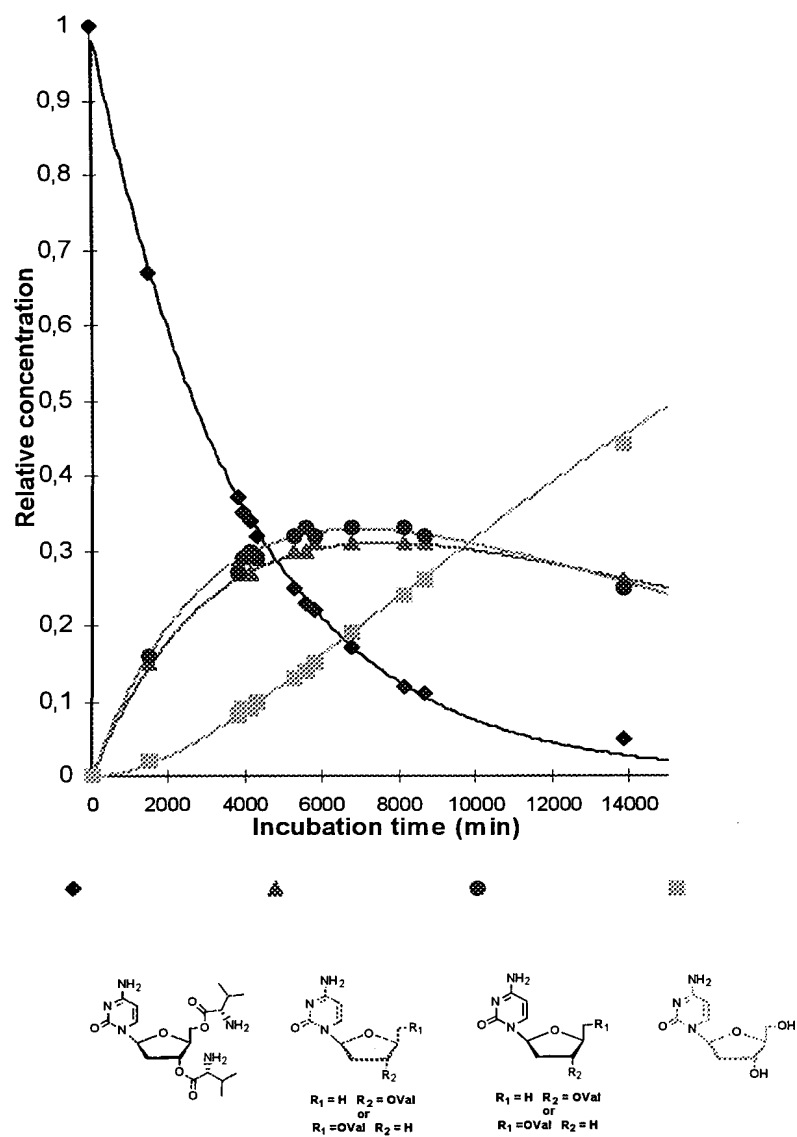




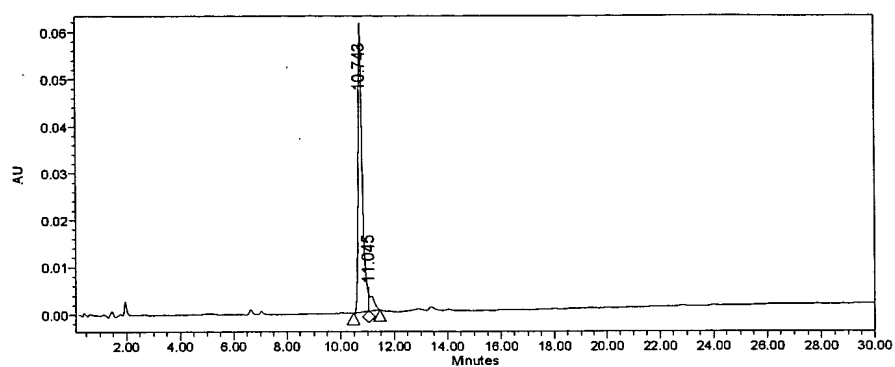
**Figure 10b** Kinetics Curves at pH of 7.20



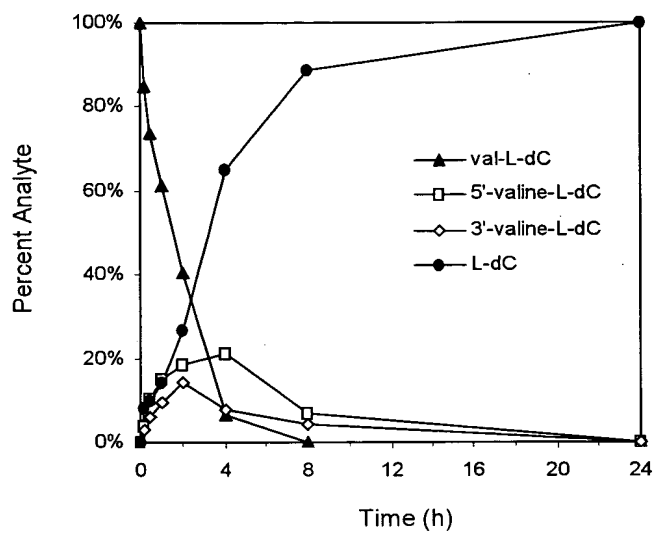
**Figure 11a** HPLC profile – 95.7 hours at pH of 4.51



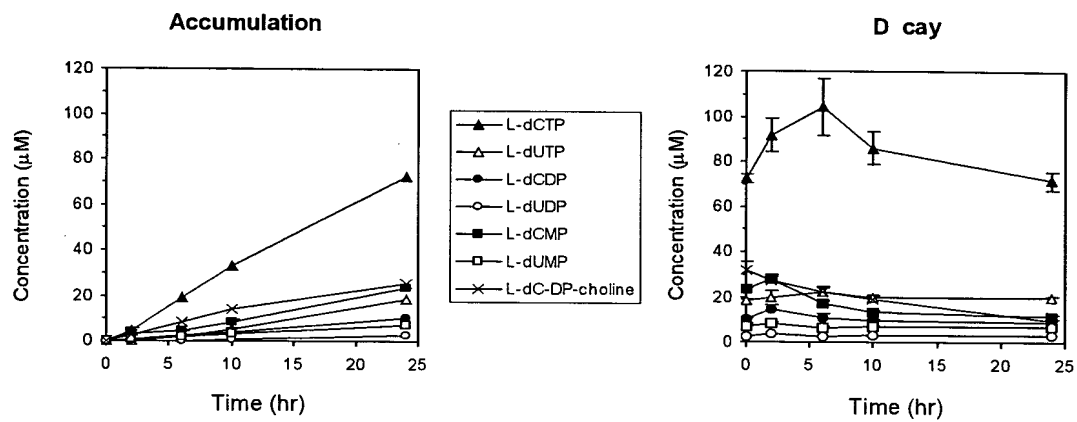
**Figure 11b** Kinetics curves at pH of 4.51



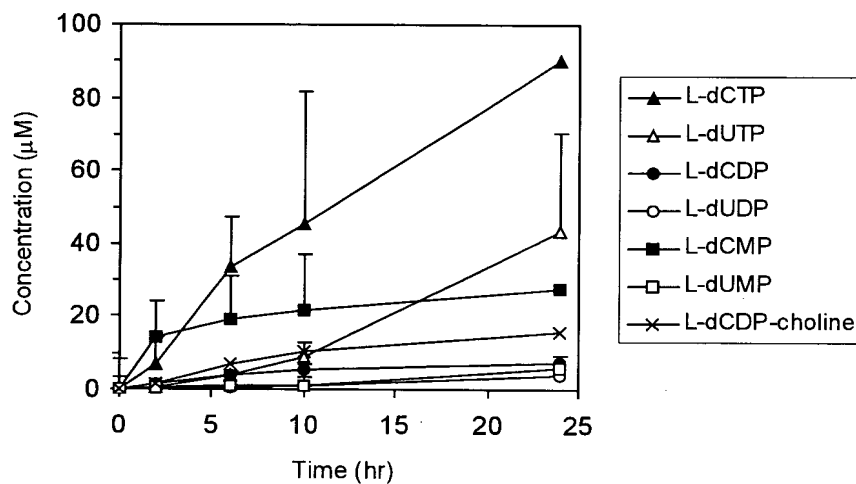
**Figure 12** HPLC profile – 48 hours at pH of 1.23



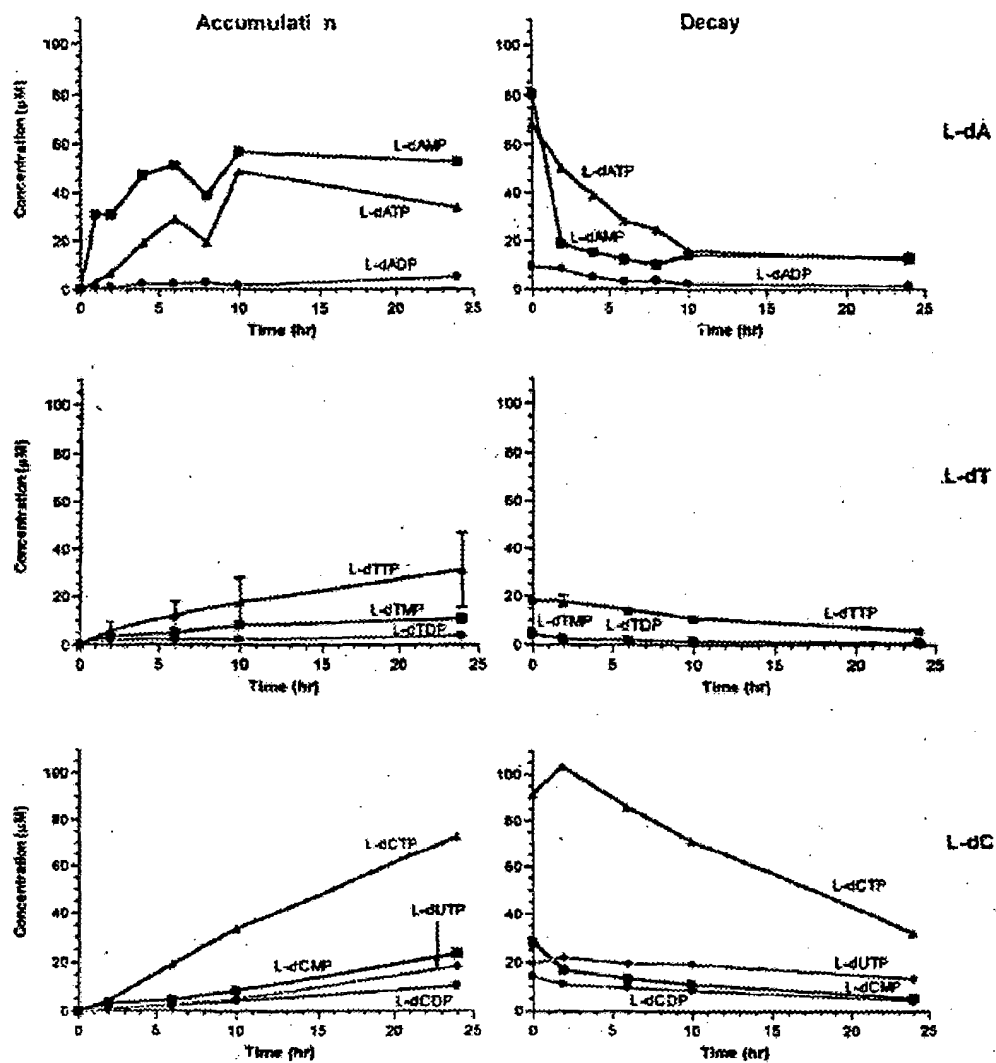
**Figure 13** *In Vitro* Metabolism of 3',5'-Dival-L-dC in Human Plasma



**Figure 14** Intracellular Metabolism of L-dC in HepG2 Cells



5 **Figure 15** Intracellular Metabolism of L-dC in Primary Human Hepatocytes



**Figure 16** Accumulation and Decay of L-dA, L-dT, and L-dC in HepG2 Cells